

IN THE CLAIMS:

1-2. (Cancelled)

3. (Previously Presented) A guide wire as in Claim 48 wherein the central zone comprises a stainless steel mandrel.

4. (Previously Presented) A guide wire as in Claim 48 wherein the proximal zone comprises a tapered mandrel with a proximal wire coil of substantially constant coil diameter on and extending along the tapered mandrel.

5-6. (Cancelled)

7. (Currently Amended) A guide wire as in Claim [[48]] 4 wherein the proximal wire coil is laser welded to the tapered mandrel.

8. (Currently Amended) A guide wire as in Claim [[48]] 4 wherein the proximal wire coil terminates in a rounded tip.

9. (Previously Presented) A guide wire as in Claim 48 wherein the distal zone comprises in order from the central zone, a tapered mandrel portion and a portion of constant reduced diameter with a distal wire coil of substantially constant coil diameter on and extending along the tapered mandrel portion and the portion of constant reduced diameter.

10. (Cancelled)

11. (Currently Amended) A guide wire as in Claim [[48]] 9 wherein the distal wire coil is laser welded to the tapered mandrel portion.

12. (Previously Presented) A guide wire as in Claim [[48]] 9 wherein the distal wire coil terminates in a rounded tip.

13-14. (Cancelled)

15-27. (Cancelled)

28. (Previously Presented) A guide wire as in Claim 48 wherein at least some portions of the guide wire are radio-opaque.

29-34. (Cancelled)

35. (Previously Presented) A guide wire as in Claim 48 wherein the proximal zone comprises a proximal wire coil of substantially constant diameter and the distal zone comprises a distal wire coil of substantially constant coil diameter and the central zone, the proximal wire coil and the distal wire coil are coated with polytetrafluoroethylene.

36. – 40. (Cancelled)

41. (Cancelled)

42. (Previously Presented) A guide wire according to Claim 49, having a "J" curve in a floppy tip portion of the distal tip curve, which provides a shape and leading end surface that minimizes the possibility of digging into the vessel wall.

43. (Cancelled)

44. (Previously Presented) A guide wire according to Claim 49, having a transition from full stiffness to semi-stiff at the proximal end, the semi-stiff proximal portion providing flexibility to allow the interventional delivery system to be loaded onto the wire and advanced without damaging the guide wire lumen or becoming jammed in the interior of the device.

45. (Previously Presented) A guide wire according to Claim 49, wherein the first and fifth zones are coated with polytetrafluoroethylene.

46. (Previously Presented) A guide wire according to Claim 49, wherein the first zone terminates in a rounded tip at the proximal portion.

47. (Previously Presented) A guide wire according to Claim 49, wherein at least some portions of the zones are radio-opaque.

48. (Previously Presented) A guide wire to assist percutaneous endovascular deployment within a thoracic arch region of an aorta, the guide wire having zones of varying stiffness comprising:

- a proximal end and a distal end;

- a proximal zone adjacent the proximal end and having a semi-stiff proximal portion, a distal portion of high-stiffness, and a transition portion transitioning from the semi stiffness of the proximal portion to the high stiffness of the distal portion, the proximal zone having a length of from 5 cm to 20 cm;

- an elongate central zone of high stiffness adjacent to the proximal zone having a substantially constant diameter along its length; and

- a distal zone adjacent to the high stiffness central zone and having a proximal portion of high-stiffness adjacent to the distal portion of the central zone and transitioning to a distal portion of highest flexibility wherein the distal zone comprises a first pre-formed curve with a radius of curvature of from 5 cm to 15 cm and being comprised of three zones:

- a semi stiff zone having a proximal portion of high stiffness adjacent to the distal portion of the central zone transitioning to a distal portion of semi-stiffness;

- a transition zone having a semi-stiff proximal portion adjacent to the distal portion of the semi stiff zone transitioning to a flexible distal portion;
- and

- a flexible zone having a flexible proximal portion adjacent to the distal portion of the transition zone transitioning to a distal portion of least stiffness and highest flexibility

having an atraumatic and highly flexible pre-formed tip curve having a single direction of curvature with a radius of curvature of from 5 to 20 mm, the high flexibility and the direction and radius of curvature being selected so that the tip curve can contact the aortic valve without penetrating or causing damage to the valve.

49. (Previously Presented) A guide wire that has a stiffness to control large diameter, stiff devices but still not damage the aortic valve or the lumen of the delivery system, wherein the guide wire has five zones of differing stiffness, the guide wire comprising:

- a proximal end and a distal end;

- a first zone adjacent to the distal end and having a distal portion terminating in a distal pre-formed tip curve having the highest flexibility and having a single direction of curvature with a radius of curvature of from 5 to 20 mm, the high flexibility and the direction and radius of curvature being selected so that the tip curve can contact the aortic valve without penetrating or causing damage to the valve transitioning to a flexible proximal portion;

- a second zone having a flexible distal portion adjacent to the proximal portion of the first zone transitioning to a semi-stiff proximal portion;

- a third zone having a semi-stiff distal portion adjacent to the proximal portion of the second zone transitioning to a proximal portion of high stiffness, wherein the first, the second, and the third zones have a pre-formed curve shape;

- a fourth zone of high stiffness adjacent to the proximal portion of the third zone and a proximal portion of high-stiffness; and

- a fifth zone having a distal portion of high-stiffness adjacent to the proximal portion of the fourth zone transitioning to a semi-stiff proximal portion adjacent to the proximal end and having a length of from 5 cm to 20 cm.